IMPORTANT SAFETY INSTRUCTION

TO REDUCE THE RISK OF ELECTRIC SHOCK
PLEASE DO NOT REMOVE THE COVER OR
THE BACK PANEL OF THIS EQUIPMENT.
THERE ARE NO PARTS NEEDED BY USER
INSIDE THE EQUIPMENT. FOR SERVICE,
PLEASE CONTACT QUALIFIED SERVICE
CENTERS.

WARNING
To reduce the risk of electric shock and fire, do not expose this equipment to moisture or rain.

Dispose of this product should not be placed in municipal waste and should be separate collection.

11. Move this Equipment only with a cart, stand, tripod, or bracket, specified by the manufacturer, or sold with the Equipment. When a cart is used, use caution when moving the cart / equipment combination to avoid possible injury from tip over.

12. Permanent hearing loss may be caused by exposure to extremely high noise levels. The US. Government's Occupational Safety and Health Administration (OSHA) has specified the permissible exposure to noise level.

These are shown in the following chart:

<table>
<thead>
<tr>
<th>HOURS X DAY</th>
<th>SPL</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>90</td>
<td>Small gig</td>
</tr>
<tr>
<td>6</td>
<td>92</td>
<td>train</td>
</tr>
<tr>
<td>4</td>
<td>95</td>
<td>Subway train</td>
</tr>
<tr>
<td>3</td>
<td>97</td>
<td>High level desktop monitors</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>Classic music concert</td>
</tr>
<tr>
<td>1,5</td>
<td>102</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>105</td>
<td></td>
</tr>
<tr>
<td>0,5</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>0,25 or less</td>
<td>115</td>
<td>Rock concert</td>
</tr>
</tbody>
</table>

According to OSHA, an exposure to high SPL in excess of these limits may result in the loss of heat. To avoid the potential damage of heat, it is recommended that Personnel exposed to equipment capable of generating high SPL use hearing protection while such equipment is under operation.

The apparatus shall be connected to a mains socket outlet with a protective earthing connection.

The mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
Thank you for purchasing the LTO LYNX-MIX USB series compact integrated mixers, which are available for 12/16/20/24 channels. Your LYNX-MIX USB Series is a remarkable compact mixer that doesn't find many equals in the market today. With 6/10/14/18 MIC and 4 Stereo Line-level inputs for serious live performances. Your LYNX-MIX USB Series also includes a 24-bit digital multieffect with 16 Factory Presets and 16 variations for every preset, for a total of 256 different digital effects. There is a 3-band EQ on mono input channels, 4-band EQ on stereo input channels. Use it for large GIGs, and for fixed PA installation.

Enjoy your LYNX-MIX USB Series and make sure to read this Manual carefully before operation!

2. FEATURES

6/10/14/18 MIC inputs with gold plated XLR and balanced TRS jack
4 Stereo input channels with balanced TRS jacks
Ultra-low noise discrete MIC preamps with +48 V Phantom Power
SUB1-2, SUB3-4 & MAIN L-R signal assignment switches
4 AUX Sends per channel: 2 PRE/POST faders switchable for monitoring application effects & sound processor input; 2 POST faders as external send or for internal digital DFX
3-band EQ with sweepable MID on mono inputs; 4-band EQ on stereo inputs
Channel Inserts and Direct Outputs on each mono channel plus Main Insert for flexible connection of outboard equipment
24-bit internal DSP with 256 effects, 16 presets by 16 variations with DSP Mute switch and Peak LED
2-TRACK IN assignable to Main Mix, Control Room/Headphone outputs
With USB port
3. QUICK START

This is the fastest way to get something out from your LYNX-MIX USB series, if you have a keyboard and a microphone.

a. Plug the microphone into Channel 1 MIC IN.
b. Turn down AUX and LEVEL controls on the input channel.
c. Put the EQ controls on center position.
d. Turn on your LYNX-MIX USB mixer.
e. Sing or speak into the microphone with normal volume and adjust the channel LEVEL control to half.
f. If you like, you can adjust the EQ at this stage.
g. The LED on the Master LED meter should flash only occasionally, otherwise you will hear distortion. If this LED is not active and you still hear distortion, please turn down a little the input LEVEL control or reduce the output level of your source instrument.
h. Connect your stereo keyboard into one of the stereo line inputs channel of your LYNX-MIX USB mixer.

Here you are. It is your first GIG with your LYNX-MIX USB series.
4. CONTROL ELEMENTS

1. MONO MIC/LINE Channels

Your LYNX-MIX124 USB is equipped with 4 (8 for LYNX-MIX164 USB, 12 for LYNX-MIX204 USB, 16 for LYNX-MIX244 USB) low-noise microphone preamplifier with optional phantom power, 50 dB of Gain and over 115 dB of S/N ratio. You can connect almost any type of microphone. Dynamic microphones do not need phantom power. Use phantom power only with condenser microphones but make sure that the phantom power button is disengaged before connecting the microphone. Phantom power will not damage your dynamic microphones, so make sure to read the MIC instructions manual before engaging phantom power. Use switch (48) to activate/deactivate phantom power. These channels are also equipped with 1/4" TRS balanced/unbalanced LINE-IN plugs to connect line-level instruments such as keyboards, drum machines and effect devices.

2. STEREO INPUTS

These are channels 5 through 12 (9 through 16 for LYNX-MIX164 USB, 13 through 20 for LYNX-MIX204 USB, 17 through 24 for LYNX-MIX244 USB). They are organised in stereo pair and provided with XLR sockets (channels 5/6 for LYNX-MIX124 USB, 9/10 for LYNX-MIX164 USB, 13/14 for LYNX-MIX204 USB) and 1/4" TRS phone jacks. If you connect only the left jack, the input will operate in mono mode, that is the mono signal will appear on both input channels. You can use these inputs with a stereo keyboard, drum machine, etc.

3. MONO Channel INSERT

This is where you connect external sound processors such as compressor-limiter, equalizers, etc. The insert point is available on the first 4 (8 for LYNX-MIX164 USB, 12 for LYNX-MIX204 USB, 16 for LYNX-MIX244 USB) MIC channels only.

4. TRIM

The TRIM control is applied in the mono MIC and stereo input channels. It provides with 2 different indications: One is for the MIC and the other for LINE levels. When you use a microphone, you shall read the MIC ring (0~50 for mono MIC input, 0~40 for stereo channels); when you use a line level
instrument, you shall read the LINE ring (+15~-35 dB for mono MIC input, +20 ~-20 dB for stereo channels). For optimum operation, you shall set this control in a way that the PEAK LED(16) blinks only occasionally in order to avoid distortion on the input channel.

5 LINE GAIN
When you use a line level instrument, you shall read the ring (-20~+20 dB). For optimum operation, you shall set this control in a way that the PEAK LED (16) blinks only occasionally in order to avoid distortion on the input channel.

6 LEVEL SET LED
This LED will help you to detect the input level immediately. In this case, the research of the fault will become much faster!

7 LOW-CUT Button
By pressing this button, you will activate a 75 Hz low frequency filter with a slope of 18 dB per octave. You can use this facility to reduce the hum noise infected by the mains power supply, or the stage rumble while using a microphone.

8 LINE/USB Button
By pressing this button, it will switch to the USB mode, then the USB signal can be sent to this channel or the Main Mix channel; by releasing this button, the LINE IN inputs signal will send to the line input channels.

EQUALISER
There are 3-band EQ with sweepable MID on all mono input channel1-4 (1-8 for LYNX-MIX164 USB, 1-12 for LYNX-MIX204 USB, 1-16 for LYNX-MIX244 USB): HI, MID and LOW band. There are 4-band fixed frequency EQ on the stereo channel 5-12 (9-16 for LYNX-MIX164 USB, 13-20 for LYNX-MIX204 USB, 17 -24 for LYNX-MIX244 USB): HI, HI-MID, MID-LOW and LOW band. All bands provide up to 15 dB of boost or cut.

9 HI
If you turn this control up, you will boost all the frequencies above 12 kHz (shelving filter). You will add transparency to vocals and guitar and also make cymbals crisper. Turn the control down to cut all frequencies above 12 kHz. In such way, you can reduce sibilances of human voice or reduce the hiss of a Tape player.
4. CONTROL ELEMENTS

10 MID
This is a peaking filter and it will boost/cut frequencies from 100 Hz to 8 kHz depending on the position of the MID freq control. This control will affect especially upper male and lower female vocal ranges and also the harmonics of most musical instruments.

11 HI-MID
This control gives you up to 15 dB boost or cut at 3 kHz. It is useful for controlling voice. It can accurately polish your performance via adjusting this knob.

12 MID-LOW
This control gives you up to 15 dB boost or cut at 500 Hz.

13 LOW
If you turn this control up, you will boost all frequencies below 80 Hz. You will give more punch to bass drum and bass guitar and make the vocalist more "macho". Turn it down, you will cut all the frequencies below 80 Hz. In this way, you can avoid lowfrequency vibrations and resonance thus preserving the life of your woofers.

14 AUX SENDS Level Control
These four controls are used to adjust the level of the respective signal sent to AUX bus, AUX1 and AUX2 can be switched to PRE/POST-FADER via the PRE/POST button, so, generally, they can be used for monitor application and effects & sound processors input. AUX3 and AUX4 are configured as POST-Faders. In this typical compact unit, excluding sending out the signal directly to the external effect or processor equipment, AUX SEND4 can also be assigned to the internal onboard effect module.

15 PAN/BAL Control
Abbreviation of PANORAMA control for mono channels, or the stereo channels, always says, BALANCE control. Keep this control in center position, then the signal will be positioned in the middle of stage.
4. CONTROL ELEMENTS

16 PEAK LED
Inside your LYNX-MIX USB mixer, the audio signal is monitored in several different stages and then sent to the PEAK LED. When the LED is red illuminated, it warns you that you are reaching signal saturation and possible distortion, then you should reduce the input level for avoiding distortion.

17 MUTE Button & LED
Each channel is equipped with a MUTE button. Pressing this button is equal to turning the fader down, which can mute the corresponding channel output except for the channel INSERT send and SOLO (in PFL mode). And the MUTE LED will illuminate.

18 ASSIGNMENT Controls
Each channel provides four push-buttons: SUB1-2, SUB3-4, MAIN L-R and SOLO. Pressing the SOLO button, the corresponding SOLO LED will illuminate and the SOLO signal will replace other signals send to the Headphone/Control Room and Meters. Usually use the SOLO function in live work to preview channels before they are let into the mix. It is useful to set an instrument's input level and EQ, and you can also solo any channel that you want to. The SOLO switch never affects any mix other than the Control Room. The other three buttons can be considered as signal assignment switches. Pressing the SUB1-2 will assign the channel signal to Subgroup1/2, you can depend on the PAN switch to adjust the amount of channel signal sent to the SUB1 versus SUB2, when turns the PAN to completely left, then the signal can be only controlled by Subgroup1 and viceversa. In the same way, pressing the SUB3-4 or MAIN L/R will assign the channel signal to Subgroup3/4 or MAIN MIX L/R, and will also be affected by PAN.

19 FADER
This fader will adjust the overall level of this channel and set the amount of signal send to the main output.

20 Control Room Source
You can choose to monitor any combination of MAIN MIX, SUB1-2, SUB 3-4 and 2TK IN via these Matrix switches. Engaging these switches, the stereo signals will be delivered to the Phones, Control Room and Meters display.

※NOTE: When any SOLO switch was engaged, the SOLO signal will replace other signals, and also be sent to the Control Room, Phones and Meters.

21 PHONES/CTRL ROOM Controls
Rotate these knobs to adjust the stereo level of CTRL ROOM and PHONES outputs separately, which can be varied from -∞ to MAX.
22 Master AUX SENDS Controls

These four controls are used to determine the master AUX SEND levels, which can be varied from $-\infty$ to $+15$ dB. When the external effect units which have no input gain control were connected to mixer, you can get a further $+15$ dB gain available from these Aux Send outputs. As to the AUX4, it can also provide the lovable level adjustment for the internal effect signal.

23 SOLO Button

The function of these SOLO buttons are the same as the channel SOLO button, they can also be affected by the SOLO MODE switch. Press the SOLO button, the corresponding AUX send will be routed to the Ctrl Room/Phones outputs and Meters display.

24 Master STEREO AUX RETURNS Controls

These four controls set the level of effects that received from the stereo AUX RETURN connectors, which can be varied from $-\infty$ to $+15$ dB. They are used to provide the further gain for low level effects.

25 TO AUX SEND1/2

The both rotary knobs assign the AUX RETURN signals to their respective AUX SEND outputs: The "TO AUX SEND1" assign the signal from AUX RETURN1 to AUX SEND1 bus, and "TO AUX SEND2" assign the signal from AUX RETURN2 to AUX SEND2 bus. The adjustable range goes from $-\infty$ to $+15$ dB.

26 MAIN MIX & CTRL/R Button

AUX RETURN3 is equipped with the Main Mix & Ctrl/R button. Release the button to send the stereo signal from AUX RETURN3 to MAIN MIX buses; Engage the button, then the stereo signal will be sent to CTRL/R output.
4. CONTROL ELEMENTS

27 SUB1-2/SUB3-4/MAIN MIX Buttons

These three buttons are configured for AUX RETURN4, they can be regarded as the signal assignment switches. When engaging the SUB1-2, the stereo signal from AUX RETURN4 will be assigned to Subgroup1/2; in the same way, SUB3-4 for Subgroup3/4, MAIN MIX for MAIN MIX buses.

28 AUX RETURNS SOLO Button

The function of AUX RETURN SOLO is like the channel SOLO button. Engaging it sends the signal from AUX RETURN (1-4) to the CTRL OUT, PHONES outputs and Meters display. It can also be affected by SOLO mode button, and the LED next to the button will illuminate.

29 SUBGROUPS ASSIGN TO MAIN MIX

Through these switches, you can operate the subgroup faders as a master control for assigning the subgroups to MAIN MIX. Engage the LEFT switch to send the corresponding subgroup signal to MAIN MIX L, and the RIGHT switch for MAIN MIX R. When engaging the both switches, the signal will be sent to L/R of MAIN MIX.

30 SUBGROUPS Fader

These faders are used to control the levels of the signal send to the SUBGROUPS OUT, the adjustable range goes from -$\infty$ to $+10$ dB. Any channel that is assigned to the subgroups, not muted and not turned down will be assigned to the SUB OUTS.

31 MAIN MIX LEVEL Fader

This fader sets the amount of signal send either to the Main Mix Output or to the Tape Output.

32 LED Meter

The stereo 12-segment LED Meter will indicate the signal level send to the Ctrl Room and Phones outputs.

33 2TK TO MIX Button

Engaging this switch allows you to combine the 2-Track output with the Main Mix. In other words, feeds the 2-Track In signals into Main L/R output.

34 SOLO MODE Button

This button provides two modes: up for PFL (Pre-Fader-Listen) mode, down for AFL (After-Fader-Listen) mode. Engage the button, the soloed signal will output after the Level control, otherwise, release the button will output the
soloed signal before the Level control.
※NOTE: The SOLO function can never affect the mix at main recording output, and also can't be affected by channel's MUTE switch.

35 EQ Switch
Engage this button to add the stereo graphic EQ to the main mix output circuit. It can be used to modify the frequency "contour" of a sound. If you release the button, the stereo graphic EQ will be bypassed.

36 STEREO GRAPHIC EQ
Each one of these faders will boost or attenuate (+/-15 dB) the selected frequency at a preset bandwidth. When all the faders are in the center position, the output of the equalizer is flat response.

DSP SECTION
There is a powerful 24-bit/256 preset multi-effects included in your LYNX-MIX USB Series. Effects include reverbs, chorus, flanger, delay and combinations of the above.

37 PRESETS
Adjust this knob to select the right effect you wish to perform. There are a total of 16 options for you: several kinds of reverb, mono and stereo delay, effects with modulation, and versatile two-effect combination.

38 VARIATIONS
Since you have selected the preferable effect, the next step, please go with the fine consideration, there are also a total of 16 variations for each preset, and each variation may be managed by several different factors.
39 DSP MUTE Switch & PEAK LED
This switch is used to activate/deactivate the effect facility. This LED lights up when the input signal is too strong. In case of the digital effect module being muted, this LED also lights up.

40 EFFECTS OUT Control
Rotate this knob to adjust the level of effect signal that intercepted from internal DSP processor and directly sent to DFX OUT, which can be varied from -∞ to +15 dB.

41 DFX2 (INT) RETURN EFFECTS TO MONITOR
The AUX1 and AUX2 controls are used to set the signal level from AUX RETURN4, which signal will be sent to AUX SEND1 and AUX SEND2. The adjustable range can be varied from -∞ to +15 dB.

42 POWER LED
The LED indicates when the power is ON.

43 PHANTOM LED
This LED indicates when the phantom power is switched on.

44 2-TRACK IN/OUT
- TAPE IN
  Use the Tape input if you wish to listen to your mix from a Tape Recorder or DAT.

- TAPE OUT
  These RCA jacks will route the main mix into a tape recorder.
4. CONTROL ELEMENTS

45 PHONES Jacks
These jacks will be used to send the signal to a pair of headphone or to powered studio monitors.

46 LAMP socket
This lovable LAMP is very convenient for your operation, it is located in the top right corner of the front panel, and provides the 12V socket that can drive standard BNC-type lamp.

REAR PANEL

47 POWER Switch
This switch is used to turn the main power on and off.

48 +48 Volt Phantom Power
It is available only to the XLR MIC sockets. Never plug in a microphone when phantom power is already on. Before turning phantom power on, make sure that all faders are totally down. In this way, you will protect your stage monitors and main loudspeakers.

49 AC Inlet with FUSE Holder
Use it to connect your LYNX-MIX USB mixer to the main AC with the supplied AC cord. Please check the voltage available in your country and how the voltage for your LYNX-MIX USB mixer is configured before attempting to connect your LYNX-MIX USB mixer to the main AC.
50 MAIN MIX OUTPUT
These stereo outputs are supplied with both the XLR and 1/4" phone jacks and it is controlled by the Main Mix Level.

51 MAIN OUTPUT LEVEL Button
This button sets the main mix output level to match the input of the device that you are ready to connect. Engage this button to reduce the output level from MAIN MIX OUTPUT by 30 dBu, it is used to match the semipro -30 dBu device, on the contrary, to match the professional +4 dBu device.

52 USB PORT
This USB port is used to connect the unit to PC with a transmission line. When it is in output mode, it can connect with the SUB1-2 or MAIN MIX output; in the input mode, it can connect with the CH11/12 (for LYNX-MIX 124 USB, CH15/16 for LYNX-MIX164 USB, CH19/20 for LYNX-MIX204 USB, CH23/24 for LYNX-MIX244 USB) or MAIN MIX output.

53 USB RECORD Switch
You can select SUB1/2 or MAIN MIX track to input the record signal to PC.

54 USB PLAYBACK Switch
You can select CH11/12 (CH15/16 for LYNX-MIX164 USB, CH19/20 FOR LYNX-MIX204 USB, CH23/24 for LYNX-MIX244 USB) or MAIN MIX track to output the audio signal from PC.

55 MAIN INSERT
These two 1/4" phone jacks are stereo insert points and used to connect processors such as compressors, equalisers etc.. When insert a external processor into the jack, the Main stereo signal will be taken out after the EQ and returned into the MAIN MIX output before the MAIN MIX fader.

56 MONO Level Control
This knob sets the level of mono mix output signal, which can be varied from $-\infty$ to $+15$ dB.

57 MONO OUTPUT Jack
This 1/4" phone jack is balanced/unbalanced mono mix output connector, it can be regarded as a sum output of the left and right of MAIN MIX.

58 CTRL OUT Jacks
These 1/4" phone jacks will be used to send the Control Room signal to the studio monitor speakers or a second set of PA.
59 DFX OUT Jack
This 1/4" phone jack is used to output the effect signal that comes from internal DSP module and the signal level can be controlled by the EFFECTS OUT(40) control.

60 FOOTSWITCH Jack
This 1/4" phone jack can be used to connect an external footswitch to turn on/off the onboard effect module.

61 AUX SENDS Jacks
These 1/4" phone jacks are used to send out the signal from the AUX Bus to external devices such as effect units and/or stage monitors.

62 AUX RETURNS Jacks
Use these stereo 1/4" phone jacks to return the stereo signal of an effect unit to the Main Mix. Alternatively you can also use them as an extra auxiliary input via using the AUX RETURN level control as volume control. The signal will be sent directly to MAIN MIX control.

63 DIRECT OUTS
Each Mono MIC/LINE Channel (CH1-CH4 for LYNX-MIX124 USB, CH1-CH8 for LYNX-MIX164 USB, CH1-12 for LYNX-MIX204 USB, CH1-16 for LYNX-MIX244 USB) is equipped with the 1/4" phone jack for directing output. These jacks are used to send the signal from the channel path to external device for recording function etc..

64 SUBGROUPS OUT Jacks
These 1/4" phone jacks are used to connect the inputs of deck or secondary in a complicated PA live sound system. You will find it is the best tool when you operate the SUBGROUPS OUT.

65 SUBGROUPS INSERT
These 1/4" phone jacks are insert points. They are used to connect processors, such as compressor, limiter, EQ etc.. When insert external processor into these jacks, the subgroup stereo signal will be taken out, then returned to before subgroups fader. Of course, these used jacks must be stereo (Tip Send/Ring Return).
Ok, you have got to this point and you are now in the position to successfully operate your LYNX-MIX USB series. However, we advise you to read the following section carefully to be the real master of your own mix. Not paying enough attention to the input signal level, the routing of the signal and the assignment of the signal will result in unwanted distortion, a corrupted signal or no sound at all. So you should follow this procedure for every single channel:

1. Turn down all input and output gain controls.
2. Connect phantom powered microphones before switching on the +48 Volt phantom power switch.
3. Set the output level of your LYNX-MIX USB mixer or the connected power amplifier at no more than 75%.
4. Now, set the CONTROL ROOM/PHONES level at no more than 50%. In this way, you will be able to hear later what you are doing connecting a pair of headphones or a pair of powered studio monitor speakers.
5. Position EQ controls on middle position.
6. Position panoramic (PAN/BAL) control on center position.
7. With a pair of headphone or studio monitor speakers are connected, apply a Line Level input signal so that the PEAK LED does not light up.
8. Increase the input gain properly for maintaining the good headroom and ideal dynamic range.
9. Depending on the actual application, turn slowly the input and output level controls for obtaining the maximum gain before distortion.
10. Now repeat the same sequence for all input channels. The main LED meter could move up into the red section. In this case you can adjust the overall output level through the main mix control.

Audio Connections
You can connect unbalanced equipment to balanced inputs and outputs. Simply follow these schematics.
5. INSTALLATION AND CONNECTION

### 1/4" Mono (TS) Jack Plug

- **Sleeve**
- **Tip**
- **Sleeve Ground/Screen**

**Use for Mono Line In, Mono 1/4" Jack Plugs**

### 1/4" Stereo (TRS) Jack Plug

- **Sleeve**
- **Tip**
- **Ring**
- **Return Signal**
- **Sleeve Ground/Screen**

**Use for Insert Points**

### 3 pin XLR Male Plug

- **Pin 1**: Ground/Screen
- **Pin 2**: Hot (+)
- **Pin 3**: Cold (-)

**Use for Balanced Mic Inputs**

(For unbalanced use, connect pin 1 to 3)

### 3 pin XLR Line Socket

- **Pin 1**: Ground/Screen
- **Pin 2**: Hot (+)
- **Pin 3**: Cold (-)

**Use for Main output**

(For unbalanced use, leave pin 3 unconnected)
5. INSTALLATION AND CONNECTION

"Tapped" Connection Direct Output Lead
(Enables the Insert to be used as a Direct Output while maintaining the channel signal flow)

YStereo lead for insert Connection
(To be used when the processor does not employ a single jack connection for the In/Out Connections)

USB Connection
### 6. PRESET LIST

<table>
<thead>
<tr>
<th>NO.</th>
<th>Preset</th>
<th>Description</th>
<th>Controllable Parameter</th>
<th>Parameter Variable range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VOCAL1</td>
<td>Simulate a room with small delay time</td>
<td>Decay time</td>
<td>0.8–1.1s 0–79ms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre delay</td>
<td>0–79ms</td>
</tr>
<tr>
<td>2</td>
<td>VOCAL2</td>
<td>Simulate a small space with slight decay time</td>
<td>Decay time</td>
<td>0.8–2.5s 0–79ms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre delay</td>
<td>0–79ms</td>
</tr>
<tr>
<td>3</td>
<td>LARGE HALL</td>
<td>Simulate a large acoustic space of the sound</td>
<td>Decay time</td>
<td>3.6–5.4s 23–55ms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre delay</td>
<td>3–55ms</td>
</tr>
<tr>
<td>4</td>
<td>SMALL HALL</td>
<td>Simulate a small acoustic space of the sound</td>
<td>Decay time</td>
<td>1.0–2.9s 20–45ms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre delay</td>
<td>1–45ms</td>
</tr>
<tr>
<td>5</td>
<td>LARGE ROOM</td>
<td>Simulate a studio room with many early reflections</td>
<td>Decay time</td>
<td>2.9–4.5s 23–55ms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre delay</td>
<td>2–55ms</td>
</tr>
<tr>
<td>6</td>
<td>SMALL ROOM</td>
<td>Simulate a bright studio room</td>
<td>Decay time</td>
<td>0.7–2.1s 20–45ms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre delay</td>
<td>0–45ms</td>
</tr>
<tr>
<td>7</td>
<td>PLATE</td>
<td>Simulate the transducers sound like classic bright vocal plate</td>
<td>Decay time</td>
<td>0.6–6.1s 10ms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre delay</td>
<td>0–10ms</td>
</tr>
<tr>
<td>8</td>
<td>TAPE REVERB</td>
<td>Simulate a record head and multiple playback heads at intervals along the tape</td>
<td>Decay time</td>
<td>1.3–5.4s 0–84ms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre delay</td>
<td>0–84ms</td>
</tr>
<tr>
<td>9</td>
<td>SPRING REVERB</td>
<td>Simulate the analog transducers’ springs lightly stretched sound</td>
<td>Decay time</td>
<td>1.3–5.4s 0–35ms</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pre delay</td>
<td>0–35ms</td>
</tr>
<tr>
<td>10</td>
<td>MONO DELAY</td>
<td>Reproduce the sound input on the output after a lapse of time</td>
<td>Period</td>
<td>60–650ms</td>
</tr>
<tr>
<td>11</td>
<td>STEREO DELAY</td>
<td>Recreate the input sound on the stereo output with different time.</td>
<td>Period</td>
<td>210–400ms 37–73%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Feedback</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>FLANGER</td>
<td>Simulate to play with another person carrying out same the notes on the same instrument</td>
<td>Rate</td>
<td>0.16–2.79Hz</td>
</tr>
<tr>
<td>13</td>
<td>CHORUS</td>
<td>Recreate the illusion of more than one instrument from a single instrument sound</td>
<td>Rate</td>
<td>0.5–5Hz</td>
</tr>
<tr>
<td>14</td>
<td>REV.+DELAY</td>
<td>Delay with room effect</td>
<td>Decay period</td>
<td>211–375ms 1.0–2.9s</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rev.decay time</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>REV.+FLANGER</td>
<td>Stereo flanger and large room reverb</td>
<td>Flanger Rate</td>
<td>0.16–2.52Hz 1.5–2.9s</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rev.decay time</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>REV.+CHORUS</td>
<td>Stereo chorus and large room reverb</td>
<td>Chorus rate</td>
<td>0.5–4.74Hz 1.5–2.9s</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rev.decay time</td>
<td></td>
</tr>
</tbody>
</table>
## 8. TECHNICAL SPECIFICATION

### Mono Input Channels
- **Microphone Input:** Electronically balanced, discrete input configuration
- **Frequency Response:** 10 Hz to 55 kHz, +/- 3 dB
- **Distortion (THD & N):** 0.005% at +4 dBu, 1 kHz
- **Gain Range:** 0 dB to 50 dB (MIC)
- **SNR (Signal to Noise Ratio):** 115 dB
- **Line Input:** Electronically balanced
- **Frequency Response:** 10 Hz to 55 kHz, +/- 3 dB
- **Distortion (THD & N):** 0.005% at +4 dBu, 1 kHz
- **Sensitivity Range:** +15 dBu to 35 dBu

### Stereo Input Channels
- **Line Input:** Balanced/Unbalanced
- **Frequency Response:** 10 Hz to 55 kHz, +/- 3 dB
- **Distortion (THD & N):** 0.005% at +4 dBu, 1 kHz

### Impedances
- **Microphone Input:** 1.4 kOhm
- **Channel Insert Return:** 2.5 kOhm
- **All Other Inputs:** 10 kOhm or greater
- **Tape Out:** 1 kOhm
- **All Other Output:** 120 Ohm

### Equalization
- **Hi shelving:** +/- 15 dB @ 12 kHz
- **Mid bell (Mono):** +/- 15 dB , frequency range 100 Hz – 8 kHz
- **Hi Mid (Stereo):** +/- 15 dB @ 3 kHz
- **Mid Low (Stereo):** +/- 15 dB @ 500 Hz
- **Low shelving:** +/- 15 dB @ 80 Hz
- **Low Cut Filter:** 75 Hz, 18 dB/Oct.

### DSP Section
- **A/D & D/A Converters:** 24 Bit
- **DSP Resolution:** 24 Bit
- **Type of Effects:** Hall, Room, Vocal & Plate REVERBS
  - Mono & Stereo DELAY (Max DELAY TIME 650ms)
  - Chorus, Flanger & Reverb MODULATIONS
  - REVERB+DELAY, REVERB+CHORUS,
  - REVERB+FLANGER Combinations
- **Presets:** 256
- **Controls:** 16 Position PRESET Selector
  - 16 Position VARIATION Selector
  - DSP MUTE SWITCH with PEAK LED Indicator

### Main Mix Section
- **Noise (Bus Noise):**
  - Fader 0 dB, Channels Muted: 100 dB (ref.: +4 dBu)
  - Fader 0 dB, all input channels assigned and set to
  - UNITY Gain: -90 dB (ref.: +4 dBu)
- **Max Output:**
  - +22 dBu Balanced XLR
  - +22 dBu Unbalanced, 1/4" jacks
- **AUX Returns Gain Range:** from to +15 dB
- **AUX Sends Max Out:** +22 dBu

### Power Supply
- **Main Voltage:**
  - USA/Canada: 100-120 VAC – 60 Hz
  - Europe: 210-240 VAC – 50 Hz
  - U.K./Australia: 240 VAC – 50 Hz
- **Power Consumption:**
  - LYNX MIX124 USB: 40 Watts
  - LYNX MIX164 USB: 50 Watts
  - LYNX MIX204 USB: 60 Watts
  - LYNX MIX244 USB: 70 Watts
### 8. TECHNICAL SPECIFICATION

<table>
<thead>
<tr>
<th>Fuse</th>
<th>LYNX MIX124 USB</th>
<th>T1.25 AL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LYNX MIX164 USB</td>
<td>T1.25 AL</td>
</tr>
<tr>
<td></td>
<td>LYNX MIX204 USB</td>
<td>T1.6 AL</td>
</tr>
<tr>
<td></td>
<td>LYNX MIX244 USB</td>
<td>T1.6 AL</td>
</tr>
<tr>
<td>Main Connection</td>
<td>Standard IEC Receptacle</td>
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</tr>
<tr>
<td><strong>Physical</strong></td>
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<td></td>
</tr>
<tr>
<td>Dimension (WxDxH)</td>
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<td></td>
</tr>
<tr>
<td>LYNX MIX124 USB</td>
<td>415 mmx400 mmx38/115 mm (16.34&quot;x15.75&quot;x1.49/4.53&quot;)</td>
<td></td>
</tr>
<tr>
<td>LYNX MIX164 USB</td>
<td>525 mmx400 mmx38/115 mm (20.67&quot;x15.75&quot;x1.49/4.53&quot;)</td>
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<tr>
<td>LYNX MIX204 USB</td>
<td>645 mmx400 mmx38/115 mm (25.39&quot;x15.75&quot;x1.49/4.53&quot;)</td>
<td></td>
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<tr>
<td>LYNX MIX244 USB</td>
<td>765 mmx400 mmx38/115 mm (30.12&quot;x15.75&quot;x1.49/4.53&quot;)</td>
<td></td>
</tr>
<tr>
<td><strong>Net Weight</strong></td>
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<td></td>
</tr>
<tr>
<td>LYNX MIX124 USB</td>
<td>5.80 Kg (12.8 lb)</td>
<td></td>
</tr>
<tr>
<td>LYNX MIX164 USB</td>
<td>7.40 Kg (16.3 lb)</td>
<td></td>
</tr>
<tr>
<td>LYNX MIX204 USB</td>
<td>9.00 Kg (19.8 lb)</td>
<td></td>
</tr>
<tr>
<td>LYNX MIX244 USB</td>
<td>10.6 Kg (23.4 lb)</td>
<td></td>
</tr>
</tbody>
</table>
9. WARRANTY

1. WARRANTY REGISTRATION CARD
   To obtain Warranty Service, the buyer should first fill out and return the enclosed
   Warranty Registration Card within 10 days of the Purchase Date.
   All the information presented in this Warranty Registration Card gives the
   manufacturer a better understanding of the sales status, so as to provide a
   more effective and efficient after-sales warranty service. Please fill out all the
   information carefully and genuinely, miswriting or absence of this card will void
   your warranty service.

2. RETURN NOTICE
   2.1 In case of return for any warranty service, please make sure that the product
   is well packed in its original shipping carton, and it can protect your unit from
   any other extra damage.
   2.2 Please provide a copy of your sales receipt or other proof of purchase with
   the returned machine, and give detail information about your return address
   and contact telephone number.
   2.3 A brief description of the defect will be appreciated.
   2.4 Please prepay all the costs involved in the return shipping, handling and
   insurance.

3. TERMS AND CONDITIONS
   3.1 A LTO warrants that this product will be free from any defects in materials
   and/or workmanship for a period of 1 year from the purchase date if you
   have completed the Warranty Registration Card in time.
   3.2 The warranty service is only available to the original consumer, who purchased
   this product directly from the retail dealer, and it can not be transferred.
   3.3 During the warranty service, A LTO may repair or replace this product at its
   own option at no charge to you for parts or for labor in accordance with the
   right side of this limited warranty.
   3.4 This warranty does not apply to the damages to this product that occurred
   as the following conditions:
   - Instead of operating in accordance with the user's manual thoroughly, any abuse
     or misuse of this product.
   - Normal tear and wear.
   - The product has been altered or modified in any way.
   - Damage which may have been caused either directly or indirectly by another
     product / force / etc.
   - Abnormal service or repairing by anyone other than the qualified personnel or
     technician.
   And in such cases, all the expenses will be charged to the buyer.
   3.5 In no event shall A LTO be liable for any incidental or consequential damages.
   Some states do not allow the exclusion or limitation of incidental or
   consequential damages, so the above exclusion or limitation may not apply to
   you.
   3.6 This warranty gives you the specific rights, and these rights are compatible
   with the state laws, you may also have other statutory rights that may vary
   from state to state.